#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-017203 Address: 333 Burma Road **Date Inspected:** 29-Sep-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Mr. Tian Lei **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

### **Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

#### BAY-3

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06800.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Longitudinal Diaphragm weld Components. Total number of welds MT Tested: 20 No's. The weld designations are review as follows:

- 1. LD3029-001-026.030.042.046
- 2. LD3029-001-032~034,039~041,048~050
- 3. LD3029-001-055~057,060,061,066,067

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06796.

Ultrasonic Testing (UT)

This QA performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. UT performed Heat straightening performed area only. This QA generated UT report for this date. The members are identified as OBG Longitudinal Diaphragm weld Components. Total number of welds UT Tested: 32 No's. The weld designations are review as follows:

1. LD3026-001-162,163,166,167,177,178,182,181,081,082,074,075,189,190,185,186,097,098,090,091,042,043, 049,050,193,170,173,174,058,059,065,066.

This QA Inspector Randomly observed the following work in progress:

American Bridge / Fluor (AB/F) QA Inspector performing MT for the welds located on CA3013B.Refer the attached photos for reference.

BAY-7

Flux Cored Arc Welding (FCAW) of weld joint W2-SB1G-016-126~131. Welder is identified as 215689. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint W2-SB1-033-051~056. Welder is identified as 205386. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

FCAW of weld joint W2-SB1A-011-126~131. Welder is identified as 048625. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

FCAW of weld joint FB3241-001-009,010. Welder is identified as 062447. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)





# **Summary of Conversations:**

Only general conversation was held between QA and Quality Control (QC) concerning this project.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer